

ABSTRACT OF THE DISCLOSURE

A controlled release agricultural absorbent based product including particles of an absorbent material containing capillaries/voids between 10-200 microns in cross-sectional diameter which is impregnated in an amount of 40-95 % of the capillaries/voids volume with an agriculturally beneficial material selected from the group consisting of fertilizers, insecticides, herbicides and fungicides, being produced by a process including steps of 1) introducing water to particles of absorbent material to result in absorption of water within the absorbent material, 2) heating the absorbent particles and water to transform the water within the absorbent particles to steam, 3) introducing the heated absorbent particles to an agriculturally beneficial material in aqueous solution to essentially saturate the absorbent particles with the agriculturally beneficial material, 4) granulating the combination of agriculturally beneficial material and saturated absorbent particles to solidify and harden the mixture, resulting in the agglomeration of absorbent particles into granules, and 5) drying the granules.